

## DOCUMENT RESUME

ED 460 471

EC 306 847

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TITLE Comprehensive Evaluation of Hawaii's Healthy Start Program.

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SPONS AGENCY Robert Wood Johnson Foundation, Princeton, NJ.; Annie E. Casey Foundation, Baltimore, MD.; David and Lucile Packard Foundation, Los Altos, CA.; Health Resources and Services Administration (DHHS/PHS), Washington, DC. Maternal and Child Health Bureau.

PUB DATE 1996-02-00

NOTE 9p.; In: A System of Care for Children's Mental Health: Expanding the Research Base. Proceedings of the Annual Research Conference (9th, Tampa, FL, February 26-28, 1996); see EC 306 844. Tables are not available from ERIC.

AVAILABLE FROM For full text:  
<http://rtckids.fmhi.usf.edu/Proceed9th/9thprocindex.htm>.

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS \*At Risk Persons; Child Abuse; Child Neglect; \*Early Intervention; \*Family Needs; \*Family Programs; Home Programs; Housing; Job Placement; Mental Health; Mothers; Needs Assessment; Neonates; Paraprofessional Personnel; \*Participant Characteristics

IDENTIFIERS Hawaii; \*Healthy Start Program

## ABSTRACT

This conference paper discusses the results of a study that investigated the characteristics and needs of mothers participating in Hawaii's Healthy Start Program (HSP). The HSP is a screening and outreach program with two components: (1) the early identification component, which consists of community-based screening to identify newborns at environmental risk for child abuse and neglect and (2) the Home Visiting component, which consists of in-home counseling by trained paraprofessionals. The evaluation focused on six geographically defined communities on Oahu that are served by HSP program sites and included a sample of 664 participants. Results indicated: (1) most mothers qualify for the state's health coverage program, which is targeted to low-income families; (2) half of the mothers received WIC while pregnant; (3) 18 percent reported problems with their current living situation; (4) 20 percent reported they will need help finding a job or work training; (5) 40 percent reported needing help arranging child care to return to work or school; and (6) 95 percent of the mothers were classified as being in poor mental health. (Contains 22 references.) (CR)

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## Comprehensive Evaluation of Hawaii's Healthy Start Program

### Authors

Introduction Method Results Discussion References

### Introduction

Hawaii's Healthy Start Program (HSP) is a well established screening and outreach program with two components: (a) the Early Identification (EID) component which consists of community-based screening to identify newborns at environmental risk for child abuse and neglect and (b) the Home Visiting component which consists of in-home counseling by trained paraprofessionals to promote healthy family functioning and child development. The latter component consists of role modeling, education, and coordinated linkage with pediatric primary care and other needed community resources in the child's first five years of life.

The HSP program philosophy is to target high risk families, focusing on both personal and environmental determinants of parenting behavior, and to promote competence by "reparenting the parents." The first step is to encourage the parent's emotional dependence on the home visitor. Then, over time, the next steps are to help the parents to become self-sufficient (Breakey, Uohara-Pratt, Morrel-Samuels, & Kolb-Latu, 1991).

Nationally, there is strong endorsement for home visiting programs in general, and the HSP model in particular. Several unresolved issues, however, impede efforts to establish community-based home visiting programs: (a) mixed results of past evaluations, (b) limited study of non-nurse home visitors, (c) evaluation of demonstrations rather than established programs, (d) little research on the types of families most likely to benefit, and (e) uncertain cost-benefits of home visiting. These issues render evaluation findings essential for informed policy and program development (United States General Accounting Office, 1990).

This evaluation is a joint effort of the Johns Hopkins University, the Hawaii State Health Department, and the

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Hawaii Medical Association (HMA). Funding for the evaluation is provided by the Robert Wood Johnson Foundation, the Annie E. Casey Foundation, the David and Lucile Packard Foundation, the Federal Maternal and Child Health Bureau, and the Hawaii State Department of Health. Participating programs and agencies include Child and Family Services, Hawaii Family Stress Center, Parents and Children Together, and the Hawaii Department of Human Services.

## Method

The project is being conducted over five years, beginning in May, 1994. The evaluation addresses four research questions:

- How closely does program implementation mirror program design?
- How successful is the program in achieving intended benefits for children and families?
- How does fidelity of implementation influence program achievement of intended benefits?
- How do achieved benefits compare to direct and indirect program costs?

The evaluation focuses on six geographically defined communities on Oahu that are served by HSP program sites. A family was eligible for the evaluation if (a) the family was eligible for the HSP itself; (b) the family was identified as at-risk by an EID worker following the usual HSP protocol; (c) the family was not currently enrolled in the HSP for a prior birth; and (d) the mother did not need a translator (fewer than 3% of those eligible for the HSP).

Enrollment began on November 1, 1994 and continued through December 31, 1995, achieving a full sample of 685 participants. At each hospital on Oahu, HSP early identification workers (EID) followed the routine HSP screening/assessment protocol to identify infants born into at-risk families. By protocol, all families living in HSP catchment areas are screened and assessed. Those scoring <sup>3</sup> 25 on Kempe's Family Stress Checklist are defined as at-risk. If the family was at-risk, the EID worker described the HSP and its evaluation according to a standardized informed consent protocol and invited the mother to participate in the evaluation.

After the mother gave informed consent for participation in the evaluation, the EID worker called the evaluation fieldwork office to determine the family's study group assignment. Families were randomly assigned to an HSP intervention group, a main control group, or a testing control group. Each intervention group family was referred to the Healthy Start Program site serving its community and was offered home visiting services following the usual HSP protocol. Each main control group family was also given a list of community programs.

All families will be followed for three years. Key outcome variable indicators and measures to be collected annually are delineated in Table 1. In addition, data on maternal characteristics, maternal and paternal employment, maternal social support, maternal health and psychological well-being, maternal health care, child health care, need for parenting services, maternal and paternal substance abuse, paternal characteristics, and family income will be collected on the baseline interview as well as in follow-up interviews.

### **Analysis**

The comparability of study participants and non-participants will be examined using standard techniques for the types of variables measured (e.g., Student's t-test for normally distributed variables, chi-square tests for binary data, etc.) for evaluation of all at-risk families at the time of the child's birth. In the same way, the initial comparability of the HSP and control groups will be assessed for these measures and for baseline interview variables. Overall process measures, outcome assessment, relationship between program process and outcome, and cost benefits analysis will be examined using standard techniques for the types of variables measured.

Within both the HSP and Control Groups, families will be categorized in terms of characteristics at the time of the child's birth: family ethnicity, initial risk assessment score, family substance abuse, family violence, and maternal age. For each outcome, multivariable models will be used to test for differences in outcome between the HSP Group and the Control Group in the presence of differences in initial risk and the degree of resolution of other outcomes.

Within both groups, levels of use and associated costs will be measured for health services, child protective services, police and legal services, and other community services. For families in the HSP group, direct program costs will be measured as well. Tests for significant differences in total costs per child between program and control group families will be computed using t-statistics, and controls for other factors that influence costs will be introduced via regression analysis.

### **Results**

Exploratory analyses were conducted by running frequencies on all 522 variables for the first 664 completed cases in the database examining distributions and summarizing responses in terms of central tendency and dispersion. Eighty-two percent of the families that were eligible for the evaluation are participating in the study. At this point, no differences in the comparability of study participants and non-participants have been detected.

### **Comparability of Groups**

Comparison of Study Groups, the Healthy Start Program Group, and the Control Group are comparable in terms of demographics (see Table 2). The only area where p approaches significance is in the Mother's Employment in the Past Year. We will control for this difference as needed in subsequent analyses.

### **Family Needs**

The baseline interview contains items pertaining to: (a) the mother's current receipt of financial, nutritional and housing assistance; (b) her perceived need for nutritional, housing, vocational and child care services; and (c) her emotional health. Table 3 summarizes the percent of mothers in the first 664 cases analyzed who report using or needing financial, nutritional, housing, educational, vocational, child care, and mental health services. Family needs associated with teenage childbearing, domestic violence, problem alcohol, and other drug use are discussed below.

Most mothers qualify for the state's health coverage program, QUEST, which is targeted to low income families. Over two-thirds of the mothers live in households with income below the poverty level, and about two thirds receive public assistance and/or food stamps.

Half the mothers received WIC while pregnant, and nearly all plan to receive WIC postpartum. Overall, 15% of the mothers would like to receive more information on breast-feeding. About a quarter of the mothers live in public housing. While virtually all live in housing with complete kitchen and bathroom facilities, 18% report problems with their current living situation. Also, 13% feel they need a new place to live, and 9% feel they need help securing new living arrangements.

Overall, 20% of mothers feel they will need help finding a job or work training. This is one-third of the 56% who plan to return to work in the next year (not shown in table). Child care is another area where a substantial portion of mothers need help. A total of 40% of the mothers report needing help arranging child care to return to work or school.

Finally, to estimate mental health needs, the short form version of the RAND mental health measure was administered (McHorney & Ware, 1995). Using the cutoff suggested by RAND researchers, 95% of the mothers were classified as being in poor mental health. While some distress, anxiety, and depression could be attributable to pregnancy and delivery, this figure is still notable.

To some extent, these estimates of need may be conservative. It is expected that reporting bias has been minimized by efforts to distinguish the program and the evaluation from one another through both an intensive training of interviewers in neutrality in conducting the interview and through careful wording of items as well as

interview and through careful wording of items as well as use of existing, validated instruments where possible. Even so, there is always the possibility that some mothers will give socially acceptable answers. In addition, it is possible that mothers use different norms in defining what they consider a problem, such as a problem with housing.

### **Family Characteristics**

Twenty-nine percent of the families have a primary ethnic affiliation of Native Hawaiian, and 41% the families have any ethnic affiliation of Native Hawaiian (see Table 4). In 54% of the first 664 study families, the mother was a teenager at the birth of her first child. Almost half (48%) report domestic violence between the mother and father in the past year. P achieves statistical significance in two areas: <sup>3</sup> 3 episodes, father toward mother and <sup>3</sup> 3 episodes, either way. These numbers will continue to be monitored, and if need be, statistical adjustments will be made to compensate for this difference. Over half (53%) of the families reported problem alcohol use, and 48% reported problem use of other drugs. Sixty-eight percent of the families reported problem use of either alcohol or other drugs.

### **Discussion**

As previously noted, there is strong endorsement for home visiting programs in general, and the HSP model in particular. Rapid proliferation of national and international replications of the Hawaii Healthy Start Program make this evaluation timely. The rigorous methodological safeguards against bias will enable home-based interventionists to have confidence in the study's findings at the conclusion of the evaluation. We are now in the midst of Year One outcome data collection and expect to begin reporting on program impact in late 1996.

### **References**

- Abidin, R. (1995). Parenting Stress Index Professional Manual (3rd ed.). Odessa, FL: Psychological Assessment Resources, Inc.
- American Academy of Pediatrics, Committee on Practice and Ambulatory Medicine. (1995). Recommendations for preventive pediatric health care.
- American Guidance Service, Inc. (1984). Vineland Adaptive Behavior Scales. Circle Pines, MN: Author.
- Barnard, K. (1978). Nursing Child Assessment Satellite Training Learning Resource Manual. Seattle, WA: University of Washington.
- Barnard, K. (1991). Community Life Skills Scale (CLSS): A Resource Manual for Professionals Using the Community Life Skills Scale. Seattle, WA: NCAST, University of



Washington.

Breakey, G. F., Uohara-Pratt, B., Morrel-Samuels, S., & Kolb-Latu, D. (1991). Healthy Start Training Manual. The Hawaii Family Stress Center. Honolulu, HI: State of Hawaii Department of Health, Contract # ASO 90-148.

Caldwell, B., & Bradley, R. (1984). Home Observation for Measurement of the Environment Administration Manual (Rev. ed.). Little Rock, AR: University of Arkansas at Little Rock.

Cohler, B., Weiss, J., & Grunebaum, H. (1970). Child-care attitudes and emotional disturbances among mothers of young children. *Genet. Psychol. Monogr.* 82: 3-47.

Eisen, M., Ware, J. E., Donald, C. A., & Brook, R. H. (1979). Measuring components of children's health status. *Medical Care* 17, 902-921.

Hart, S. N., & Brassard, M. (1991). Final Report: Developing and validating operationally defined measures of emotional maltreatment: a multimodel study of the relationship between caretaker behavior and child characteristics across three developmental levels. NCCAN Research Grant Final Report, HHS Grant # HHS 90CA1216 HART.

Hart, S. N., & Brassard, M. R. (1991). Developing and Validating Operationally Defined Measures of Emotional Maltreatment. NCCAN Research Grant Addendum to Final Report. HHS Grant # 90CA1216 HART.

McHorney, C., & Ware, J. (1995). Construction and validation of an alternate form general mental health scale for the medical outcomes study short-form 36-item health survey. *Medical Care*, 33, 15-28.

Pascoe, J. M., & French, J. (1990). The reliability and validity of the maternal social support index. *Fam Medicine*, 22, 228-230.

Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1, 385-401.

Stanford-Binet. (1986). Stanford-Binet Intelligence Scale (4th ed.). Chicago, IL: Riverside Publishing Co.

Starfield B. (1992). Primary Care: Concept, Evaluation, and Policy. New York: Oxford University Press.

Straus, M. A., Hamby, S., Finkelhor, D., & Runyan, D. (1995). Parent-Child Conflict Tactic Scales. Durham, NH: University of New Hampshire.

The Health Institute, New England Medical Center. (1994).

Primary care assessment survey. Boston, MA: Author.

Psychological Corporation. (1993). Bayley Scales of Infant Development. (1993). New York: Author.

United States General Accounting Office. (July, 1990). Home Visiting: a promising early intervention strategy for at-risk families. Washington, DC: GAO/HRD-90-83.

Wasik, B.H. (1989). Coping with Parenting Through Effective Problem Solving. Chapel Hill, NC: University of North Carolina.

Zimmerman, I. L., Steiner, V. G. & Pond, R. E. (1979). Preschool language scale. Columbus, OH: Charles E. Merrill Publishing Company.

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Liberton, C., Kutash, K., & Friedman, R. M. (Eds.), (1997). The 9th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base (February 26 - 28, 1996). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, Research & Training Center for Children's Mental Health.



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